

REMARKS

The Office Action dated July 31, 2007, and the references cited therein have been carefully considered. Claims 1, 3-12, and 14-20 are presently pending. Claims 2 and 13 have now been incorporated in their respective independent claims and canceled. No claims currently stand allowed. Applicants have also amended the claims for purposes of clarity, and in particular to make clear the distinctions between the disclosed/claimed conductor assembly sheath (adapted to contain signal wire bundles of a conductor assembly) and a catheter lumen/tube of the type disclosed in the cited Valley patent. Nowhere does Valley disclose the claimed wire arrangements wherein the wire bundles are, in turn, twisted together and furthermore contained within a conductor assembly sheath. For at least this reason, as well as reasons provided herein below, the pending claims are patentable over the prior art presently known to Applicants. Accordingly, Applicants request favorable reconsideration of the previous rejection of the now pending claims. Please charge any fees to Deposit Account No. 12-1216.

Summary of the Claim Rejections

The following identifies the authority and prior art applied to the identified claims for each rejection of the claims set forth in the Office Action dated July 31, 2007.

1. **Sections 2-6:** Claims 1-7, 9-17, 19 and 20 are rejected under Section 102(b) as being anticipated by Valley et al., U.S. Pat. No. 5,795,325 (Valley).
2. **Sections 7-9:** Claims 8 and 18 are rejected under 35 U.S.C. Section 103(a) as being obvious over Valley.

For the reasons set forth below, Applicants traverse the previous rejection of all the claims in view of the amendments incorporated into the now pending claims.

*Applicants' Responsive Comments**Rejection of Claims 1-7, 9-17, 19 and 20 as Anticipated by Valley*

Applicants, in view of the present amendments, traverse the rejection in **Sections 2-6** of the Office Action of Claims 1-7, 9-17, 19 and 20 under Section 102(b) as being anticipated by Valley. Independent **claims 1 and 12** have been amended to include elements previously presented in claims 2 and 13. Applicants have also amended claims 1 and 12 to clarify the

meaning of the term "sheath" and ensure an interpretation of the term that is consistent with Applicants' disclosure.

Applicants disclose and presently claim a sensor catheter/flexible elongate member including a plurality of wires arranged in a particular way. In particular: (1) the individual wires of first and second wire bundles are twisted together, (2) the first and second wire bundles are, in turn, twisted together, and (3) the "twisted together" twisted wire bundles are, in turn, contained within a conductor assembly sheath. The twisting of wires within the bundles and the subsequent twisting of the wire bundles together and containment within a conductor assembly sheath potentially reduce electromagnetic interference (e.g., cross-talk) on signals carried by the wire bundles. See, Applicants' FIGs. 4-6 and paragraphs [0025] – [0028].

Valley indeed discloses twisting the pairs of wires for each of the three sensors. See, col. 19, lines 25-26. However, Valley explains that the choice of twisted pair as opposed to parallel or coaxial cable wire arrangements is chosen to "match the impedance of the transducers." Valley discloses twisted pair arrangements as a potential alternative embodiment to the one illustratively depicted in FIG. 7a, and Valley is totally silent with regard to: (1) the physical (twisted) relationships between twisted wire pairs, and (2) physical containment of the twisted wire bundles within a conductor assembly sheath. For at least this reason, previously pending claims 2 and 13 (now embodied in amended claims 1 and 12) are patentable over Valley. *In the event that claims 1 and 12 are not deemed patentable, Applicants specifically request identification in Valley of: (1) two sets of twisted pair wires that are, in turn, twisted together, and (2) a conductor assembly sheath as presently disclosed/claimed by Applicants.*

Applicants traverse the rejection of each of the dependent **claims 3-7, 9-11, 14-17, 19 and 20** for at least the above-provided reasons regarding claims 1 and 12 from which they depend.

Applicants specifically traverse the rejection of **claims 9 and 19** for at least the further reason that Valley does not disclose: (1) twisting three wire bundles together and (2) disposing the twisted bundles within a conductor assembly sheath. Instead, Valley recites "twisted pairs" (col. 19, line 26), without any further disclosure with regard to the physical relationships between the twisted pairs.

Applicants specifically traverse the rejection of **claims 10, 11 and 20** for at least the further reason that Valley does not disclose twisting the pairs and the wire bundles in substantially opposite directions. The disclosure of Valley stops at twisting pairs of wires and does not address physical relationships between bundles of twisted pair wires.

Rejection of Claims 8 and 18 as Obvious over Valley

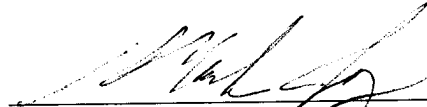
Applicants traverse the rejection in **Sections 7-9** of the Office Action of **Claims 8 and 18** under Section 103(a) as being obvious in view of the teachings of Valley. Claims 8 and 18 both recite "the third bundle consists of three wires" which the Office Action concedes is not present in Valley. The Office Action asserts, however, that such arrangement is an obvious design choice. Including a third wire bundle with a third wire potentially increases signal interference between the wires making up the third bundle and therefore would not appear to be an obvious design choice. This alone would teach away from the claimed arrangement. The non-obviousness of this arrangement is further supported by Valley that disclosed twisted pair arrangements, but does not suggest or disclose twisting three wires together in a bundle.

The remaining portion of the grounds for the rejection of claims 8 and 18 focuses upon an unsupported requirement, asserted by the Office Action, for Applicants to show some form of advantage provided or some problem solved to substantiate the non-obviousness of the claimed invention. As an initial matter, Applicants are unaware of such a requirement to support non-obviousness. Furthermore, to the extent that the Office Action is seeking to request secondary evidence of non-obviousness, such requirement only arises after a *prima facie* showing of obviousness. However, the Office Action has not yet provided a *prima facie* case of obviousness by showing the presence of each of the recited claim elements in the prior art. Valley discloses three pairs of wires associated with three pressure sensors mounted at a distal end of a catheter, and Valley states in passing that such wires may be arranged as *twisted pairs* to accommodate impedance matching for the pressure sensors. Valley does not disclose a seventh wire that would be combined with one of the three pairs of lines to render a twisted three wire arrangement. Therefore, for the reasons set forth herein, claims 8 and 18 are not obvious over Valley.

Conclusion

If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,



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